

SEQUENCE LISTING



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The Regents of the University of California

<120> Nucleic Acids Encoding Proteins Involved in Sensory Transduction

<130> 02307E-084210US

<140> US 09/361,630

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<150> US 60/094,464

<151> 1998-07-28

<160> 24

<170> PatentIn Ver. 2.0

<210> 1

<211> 388

<212> PRT

<213> Rattus sp.

<220>

<223> rat taste cell polypeptide (TCP) #1 amino acid sequence

<400> 1

Met	Ile	Arg	His	Glu	Gln	Ser	Leu	Val	Gly	Gly	Ser	Gln	Ala	Pro	Leu
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Gly	Leu	Leu	Leu	Ile	Cys	Leu	Gly	Leu	Pro	Gly	Leu	Phe	Ala	Arg	Ser
			20					25					30		

Ile	Gly	Ala	Pro	Glu	Glu	Lys	Val	Ser	Pro	His	Ser	Gly	Gln	Pro	Ser
		35				40						45			

Phe	Thr	Ser	Leu	Leu	Asn	Ser	Gly	Gln	Pro	Gln	Pro	Lys	Pro	Asp	Ser
	50					55					60				

Val	Asn	Asn	Glu	Leu	Pro	Gly	Val	Leu	Pro	Arg	Leu	Ser	Glu	Ser	Pro
	65				70					75					80

Gln	Asp	Gly	Ser	Leu	Pro	Lys	Gly	Gly	Ser	Glu	Val	Pro	Gly	Gly	Pro
				85					90					95	

Pro	Phe	Trp	Gly	Arg	Pro	Pro	Phe	Trp	Gly	Pro	Pro	Pro	Met	Glu	Ser
			100					105					110		

Trp	Pro	Ser	Glu	Asp	Pro	Gln	Gln	Gly	Met	Phe	Ala	Asp	Ala	Glu	Asp
		115					120					125			

His	Leu	Glu	Pro	Val	Leu	Pro	Glu	Ala	Leu	Ser	Tyr	Leu	Ser	Arg	Asp
	130					135					140				

Ser Pro Leu Pro Glu Ala Ser Ser Ala His Val Lys Gln Pro Ser Pro  
 145 150 155 160  
 Glu Ala Ser Tyr Pro Leu Asp Thr Glu Pro Glu Pro Gln Pro Gly Ser  
 165 170 175  
 Arg Ser Leu Glu Thr Glu Ala Glu Ala Phe Ala Arg Ser Pro Phe Trp  
 180 185 190  
 Phe Leu Val His Lys Leu Leu Pro Gly Val Ser Gly Arg Ile Leu Asn  
 195 200 205  
 Pro Gly Thr Ser Trp Gly Ser Gly Gly Ala Gly Thr Gly Trp Gly Thr  
 210 215 220  
 Arg Pro Met Pro Tyr Pro Ser Gly Ile Trp Gly Ser Asn Gly Leu Val  
 225 230 235 240  
 Ser Gly Thr Ser Leu Val Gly Asn Gly Arg Tyr Pro Ala Gly Ile Trp  
 245 250 255  
 Gly Gly Asn Gly Arg Tyr Pro Val Gly Ile Trp Gly Gly Ser Gly Arg  
 260 265 270  
 Tyr Pro Ala Gly Ile Trp Gly Gly Ser Gly Arg Tyr Pro Ala Gly Ile  
 275 280 285  
 Trp Gly Gly Asn Gly Arg Tyr Pro Val Gly Ser Trp Gly Gly Asn Gly  
 290 295 300  
 Arg Tyr Pro Val Gly Ser Trp Gly Gly Ile Gly Arg Tyr Pro Val Gly  
 305 310 315 320  
 Asn Trp Gly Gly Asn Gly Gln Tyr Pro Ala Gly Ser Trp Gly Ser Asn  
 325 330 335  
 Gly Arg Tyr Pro Ala Gly Ser Trp Gly Pro Asn Cys Gln Tyr Pro Ala  
 340 345 350  
 Gly Ser Arg Gly Pro Asn Cys Gln Tyr Pro Pro Gly Ser Trp Gly Ala  
 355 360 365  
 Lys Gly Gln Lys Arg Leu Pro Pro Gly Val Lys Pro Pro Gly Ser Ser  
 370 375 380  
 Gly Gly Ser Pro  
 385

<210> 2  
 <211> 349  
 <212> PRT  
 <213> Mus sp.

<220>  
 <223> mouse taste cell polypeptide (TCP) #1 amino acid  
 sequence

<400> 2  
 Met Gln Ser His Ala Gly Gly Ser Arg Ala Pro Leu Gly Leu Leu Leu  
 1 5 10 15

Ile Cys Leu Cys Leu Pro Gly Leu Phe Ala Arg Ser Thr Gly Ala Pro  
 20 25 30  
 Glu Glu Lys Ala Ser Pro His Ser Gly Gln Pro Ser Phe Thr Ser Leu  
 35 40 45  
 Leu Asn Pro Gly Gln Leu Gln Pro Lys Pro Asp Pro Val Asn Asn Glu  
 50 55 60  
 Leu Leu Gly Val Leu Pro Arg Leu Ser Glu Ser Pro Gln Asp Gly Ala  
 65 70 75 80  
 Leu Pro Glu Gly Gly Ser Glu Val Pro Asn Gly Pro Pro Phe Trp Gly  
 85 90 95  
 Pro Pro Pro Met Glu Ser Trp Pro Ser Glu Asp Pro Gln Gln Gly Met  
 100 105 110  
 Ala Ala Val Ala Glu Asp Gln Leu Glu Gln Met Leu Pro Glu Ala Leu  
 115 120 125  
 Pro Tyr Leu Ser Arg Gly Gly Arg Leu Pro Glu Ala Ser Ser Ala Arg  
 130 135 140  
 Leu Arg Gln Pro Ser Pro Ala Ala Ser Tyr Pro Gln Asp Ser Glu Ala  
 145 150 155 160  
 Gly Leu Gln Pro Gly Ser Ser Ser Leu Glu Thr Glu Ala Glu Ala Phe  
 165 170 175  
 Ala Arg Ser Pro Phe Trp Phe Leu Ile His Lys Leu Leu Pro Gly Ser  
 180 185 190  
 Ser Gly Arg Ile Leu Arg Pro Gly Thr Ser Trp Gly Ser Gly Gly Ala  
 195 200 205  
 Gly Thr Gly Trp Gly Thr Arg Pro Met Pro Tyr Pro Ser Gly Ile Trp  
 210 215 220  
 Gly Ser Asn Gly Leu Val Ser Gly Thr Ser Leu Gly Gly Arg Gly Pro  
 225 230 235 240  
 Tyr Pro Val Arg Ile Trp Gly Arg Asn Gly Trp Tyr Pro Leu Arg Ile  
 245 250 255  
 Leu Gly Gly Asn Gly Arg Tyr Pro Pro Val Gly Thr Trp Gly Gly Tyr  
 260 265 270  
 Gly Gln Tyr Pro Pro Val Gly Thr Trp Gly Gly Tyr Gly Gln Tyr Pro  
 275 280 285  
 Pro Val Gly Pro Trp Gly Gly Tyr Gly Gln Tyr Pro Pro Val Gly Thr  
 290 295 300  
 Trp Gly Ala Asn Cys Gln Tyr Pro Ala Gly Ser Arg Arg Pro Asn Cys  
 305 310 315 320  
 Arg Tyr Pro Ala Gly Ser Trp Gly Thr Lys Gly Gln Asn Arg Leu Pro  
 325 330 335

Pro Gly Ala Lys Arg Pro Gly Ser Ser Gly Ile Thr Pro  
 340 345

<210> 3  
 <211> 731  
 <212> PRT  
 <213> Rattus sp.

<220>  
 <223> rat taste cell polypeptide (TCP) #2 amino acid  
 sequence

<400> 3  
 Met Asp Lys Gln Gln Phe Pro Ala Ala Gly Ile Leu Leu Ala Ala Phe  
 1 5 10 15  
 Leu Val Val Ser Ala Ser Thr Leu Thr Leu Leu Ser Thr Asn Gly Asp  
 20 25 30  
 Pro Asp Gln Phe Pro Ser Asp Pro Gly Thr Ser Ala Gln Gln Ser Asn  
 35 40 45  
 Asn Ile Leu Leu Gly Ile Leu Thr Asp Asn Thr Gly Ser Ile Asn Ser  
 50 55 60  
 Thr Glu Arg Glu Ser Glu Ala Leu Gly Arg Arg Ala Gly Ala Phe Ser  
 65 70 75 80  
 Thr Glu Gly Ala Gly Gly Gln Glu Ser Pro Pro Met Pro Gly Pro Ser  
 85 90 95  
 Gly Thr Val Thr Pro Glu Pro Ile Arg Ser Ala Leu Thr Thr Ser Ala  
 100 105 110  
 Ala Tyr Met Ala Ala Asp Ser Gln Pro Val Ser Pro Glu Ala Glu Pro  
 115 120 125  
 Val Glu Glu Ile Leu Ala Leu Gly Ile Leu Glu Thr Ile Thr Met Ser  
 130 135 140  
 Ser Pro Gln Pro Ser Pro Ile His Gly Ser Glu Pro Lys Phe Lys Lys  
 145 150 155 160  
 Ala Phe Arg Pro Pro His Leu Leu Trp His Thr Pro Asn Pro Thr Val  
 165 170 175  
 Gln Met Leu Val Pro Ala Trp Arg Asn Gly His Ser Arg Pro Glu Ala  
 180 185 190  
 Ser Ser Ser Val Ala Leu Ala Pro Arg Thr Ser Leu Gly Leu Pro Val  
 195 200 205  
 Phe Pro Trp Met Pro Asn Ile Leu Lys Ala Thr Glu Pro Leu Leu Pro  
 210 215 220  
 Ala Ser Pro Gly Arg Leu Gly Leu Asp Leu Thr Ser Gln Val Gly Ser  
 225 230 235 240  
 Gly Ser Phe Glu Asp Thr Gly Pro Val Ser Gly Gly Ala Asn Asp Ser  
 245 250 255

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Pro Gln Pro Pro Val Ser Ala Ile Val Ser Ser Thr Thr Asp Ser Ser  
 260 265 270  
 Ile Lys Thr Ser Asn Leu Ala Pro Gln Thr Ala Leu Gln Pro Gln Pro  
 275 280 285  
 Pro Gly Pro Trp Phe Pro Pro Ala Gln Ser Ala Cys Pro Pro Ser Leu  
 290 295 300  
 Ser Ser Thr Ser Pro Ala Leu Pro Leu Pro His Thr Ala Leu Ala Tyr  
 305 310 315 320  
 Thr Glu Ser Ser Val Asp Ala Glu Pro Thr Gln Ala Ser Thr Leu Pro  
 325 330 335  
 His Leu Gly Gln Ala Met Ser Leu Gln Asn Leu Ser Phe Ser Thr Pro  
 340 345 350  
 Gly Pro Arg His Thr Thr His Ser Val Thr Phe Arg Thr Asn Ser Ser  
 355 360 365  
 Cys Phe Arg Ile Val Val Trp Ser Leu Val Pro Leu Glu Cys Trp Leu  
 370 375 380  
 Leu Asn Arg Leu Ile Cys Tyr Gln Leu Gln Leu Ile Tyr His Glu Ala  
 385 390 395 400  
 Phe Ser Asn Phe Lys Asn Val Ser Ala Leu Leu Phe Arg Pro Gly Ser  
 405 410 415  
 Thr Glu Val Lys Ala Ser Leu Val Phe Gly Pro Pro Asp Pro Ser Ala  
 420 425 430  
 Leu Glu Ile Leu Trp Thr Leu Tyr Arg Lys Val Lys Ser Ser Arg Trp  
 435 440 445  
 Ser Leu Gly Tyr Leu Ser Leu Ala Asp His Gly Leu Ser Ser Asp Gly  
 450 455 460  
 Tyr Asn Thr Asn Asp Leu Arg Gln Glu Thr Ile Asn Ile Ser Phe Thr  
 465 470 475 480  
 Leu Met Lys Pro Phe Leu Pro Gln Leu Leu Leu Pro Ser Ser Gln Pro  
 485 490 495  
 Phe Leu Leu Met Glu Lys Gln Thr Leu Gln Leu Val Thr His Glu Val  
 500 505 510  
 Ser Arg Phe Tyr Lys Ala Glu Leu Gln Glu Gln Pro Leu Leu Leu Phe  
 515 520 525  
 Ser Asn Val Lys Glu Trp Val Ser Ile Tyr Val Glu Tyr Lys Phe Lys  
 530 535 540  
 Ser Pro Ile Pro Asn His Leu Gln Gly Leu Ala Ser His Leu Ala His  
 545 550 555 560  
 His Ile Thr Asp Pro Thr Ile Gln Lys Ser Ser Ile Val Ala Asn Gly  
 565 570 575

Glu Lys Ala Asp Leu Val Phe Tyr Glu Thr Trp Leu Leu Ile Leu Gly  
 580 585 590  
 Tyr Pro Phe Thr Lys Ala Leu Glu Asn Lys Thr Ser Ser Glu Ser Gln  
 595 600 605  
 Lys Leu Arg Gly Leu Leu Thr Arg Gln Leu Thr Ser Val Leu Gln Pro  
 610 615 620  
 Leu Gln Asn Phe Gly Gln Val Val Val Glu Glu Phe His Gln Glu Pro  
 625 630 635 640  
 Leu Thr Ala Arg Val Gln Thr Ala Phe Phe Glu Ala Ala Pro Ala Gln  
 645 650 655  
 Ala Val Ile Gln Asp Ser Met Leu Gln Ala Leu Gly Ser Leu Gln Glu  
 660 665 670  
 Ala Glu Gly Leu Gln Leu Glu Met Leu Leu Pro Val Leu Gly Thr Pro  
 675 680 685  
 Ser Ser Arg Ala Ser Arg Gly Pro Arg Gly Gly Ala Val Leu Asn Leu  
 690 695 700  
 Gln Phe Ile Thr Ser Leu Phe Val Leu Val Ala Leu Cys Thr Ala Leu  
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 Pro Phe Thr Lys Lys Gln Thr Pro Tyr Leu Phe  
 725 730

<210> 4  
 <211> 729  
 <212> PRT  
 <213> Mus sp.

<220>  
 <223> mouse taste cell polypeptide (TCP) #2 amino acid  
 sequence

<400> 4  
 Met Asp Lys Gln Trp Phe Pro Ala Ala Gly Ile Leu Leu Ala Ala Leu  
 1 5 10 15  
 Leu Val Val Ser Ala Ser Thr Leu Thr Leu Leu Ser Thr Asn Glu Asp  
 20 25 30  
 Pro Glu Gln Phe Pro Ser Ala Pro Gly Thr Ser Ala Gln Gln Ser Ser  
 35 40 45  
 Arg Ile Leu Leu Gly Ile Leu Thr Asp Val Thr Gly Gly Ile Asn Ser  
 50 55 60  
 Val Glu Arg Glu Pro Glu Ala Leu Gly Arg Arg Ala Gly Gly Leu Ser  
 65 70 75 80  
 Thr Glu Gly Ala Gly Gly Gln Glu Ser Pro Ser Met Pro Gly Pro Ser  
 85 90 95  
 Gly Arg Val Ile Pro Glu Pro Ile Pro Ser Ala Leu Thr Thr Ser Ala  
 100 105 110

Ser Asp Met Ala Ser Gln Pro Val Ser Ser Gly Ala Asp Pro Ile Glu  
 115 120 125  
 Glu Ile Met Ala Leu Gly Thr Leu Glu Thr Ile Thr Met Ser Ser Pro  
 130 135 140  
 Gln Pro Ser Pro Arg His Glu Ser Glu Gln Lys Phe Asp Lys Val Phe  
 145 150 155 160  
 Arg Ser Pro His Leu Leu Trp Cys Thr Pro Asn Ser Thr Val Tyr Ile  
 165 170 175  
 Pro Val Pro Ala Trp Arg Asp Gly His Ser Arg Pro Glu Ala Ser Ser  
 180 185 190  
 Ser Val Pro Leu Ala Pro Ser Thr Ser Leu Gly Leu Pro Ile Phe Pro  
 195 200 205  
 Trp Met Pro Asn Ile Leu Lys Ala Thr Glu Ser Leu Leu Pro Ala Ser  
 210 215 220  
 Pro Gly Arg Ser Gly Leu Asp Leu Thr Ser Gln Val Gly Ser Arg Ala  
 225 230 235 240  
 Ser Glu Asn Thr Val Ala Leu Asp Thr Gly Pro Val Ser Arg Gly Ala  
 245 250 255  
 Ser Asp Ser Pro Gln Thr Thr Pro Ser Thr Thr Asp Ser Phe Ile Lys  
 260 265 270  
 Thr Ser Asn Leu Gly Pro Gln Ile Ala Leu Gln Pro Ser His Pro Gly  
 275 280 285  
 Leu Trp Leu Pro Thr Ser Pro Ile His Met Pro Thr Leu Ser Leu Gln  
 290 295 300  
 His Phe Ser Ser Pro Pro Ser Thr Ala His Ser Ser Gly Phe Thr Glu  
 305 310 315 320  
 Ser Ser Val His Ala Asp Pro Thr Leu Ala Ser Thr Leu Pro His Pro  
 325 330 335  
 Gly Gln Asp Met Ser Leu Gln Asp Leu Ser Phe Ser Thr Gly Gly Arg  
 340 345 350  
 Ser His Thr Thr His Ser Val Thr Phe Arg Ile Asn Ser Asn Arg Phe  
 355 360 365  
 Thr Lys Ala Val Trp Asn Leu Val Pro Leu Glu Arg Trp Leu Leu Asn  
 370 375 380  
 Arg Leu Ile Cys Tyr Gln Leu Arg Phe Ile Tyr Gln Glu Ala Phe Pro  
 385 390 395 400  
 Asn Phe Arg Asn Val Ser Thr Leu Leu Phe Arg Pro Gly Cys Pro Glu  
 405 410 415  
 Val Lys Ala Ser Leu Ile Phe Gly Pro Pro Asp Pro Ser Ser Ile Glu  
 420 425 430

Ile Leu Trp Thr Leu Tyr Arg Lys Val Lys Ser Ser Arg Trp Ser Leu  
 435 440 445  
 Gly Tyr Leu Ser Leu Ala Asp His Gly Leu Ser Ser Asp Gly Tyr Ser  
 450 455 460  
 Met Thr Asp Leu Thr Gln Glu Ile Ile Asn Ile Ser Phe Thr Leu Met  
 465 470 475 480  
 Arg Pro Phe Leu Pro Gln Leu Leu Leu Pro Ser Ser Gln Pro Cys Ile  
 485 490 495  
 Leu Leu Glu Lys Gln Thr Ile Gln Leu Val Thr His Glu Val Ser Arg  
 500 505 510  
 Phe Tyr Lys Ala Glu Leu Gln Ser Gln Pro Leu Leu Leu Phe Ser Asn  
 515 520 525  
 Val Lys Glu Trp Val Ser Val Tyr Met Glu Tyr Lys Phe Lys Ser Pro  
 530 535 540  
 Ile Pro Ile Arg Leu Gln Gly Leu Ala Ser His Leu Ala His His Ile  
 545 550 555 560  
 Thr Asp Pro Thr Leu Gln Lys Ser Ser Ile Met Ala Asn Gly Glu Lys  
 565 570 575  
 Ala Asp Leu Val Phe Tyr Glu Met Trp Leu Leu Ile Leu Gly His Pro  
 580 585 590  
 Phe Thr Lys Thr Leu Glu Asn Lys Thr Ser Ser Glu Cys Gln Glu Leu  
 595 600 605  
 Arg Gly Leu Leu Thr Arg Gln Leu Thr Ser Val Leu Gln Pro Leu Lys  
 610 615 620  
 Asn Phe Gly Gln Val Val Val Glu Glu Phe His Gln Glu Pro Leu Thr  
 625 630 635 640  
 Ala Arg Val Gln Thr Ala Phe Phe Gly Ala Val Pro Ala Gln Ala Ile  
 645 650 655  
 Ile Gln Asp Thr Val Leu Gln Ala Leu Gly Ser Leu Gln Glu Thr Glu  
 660 665 670  
 Gly Leu Gln Leu Glu Met Leu Leu Pro Val Leu Gly Thr Pro Ser Ser  
 675 680 685  
 Arg Ala Ser Arg Gly Pro Arg Gly Gly Ala Met Leu Asn Leu Gln Arg  
 690 695 700  
 Phe Thr Ser Leu Phe Val Leu Val Ala Leu Cys Thr Ala Pro Pro Phe  
 705 710 715 720  
 Ile Asn Lys Gln Ala Leu Tyr Leu Ser  
 725



<210> 5  
 <211> 344  
 <212> PRT  
 <213> Rattus sp.

<220>  
 <223> rat taste cell polypeptide (TCP) #3 amino acid  
 sequence

<400> 5  
 Met Asp Arg Phe Arg Met Leu Phe Gln Asn Phe Gln Ser Ser Ser Glu  
 1 5 10 15  
 Ser Val Thr Asn Gly Ile Cys Leu Leu Leu Ala Ala Val Thr Val Lys  
 20 25 30  
 Met Tyr Ser Ser Leu Asp Phe Asn Cys Pro Cys Leu Glu Arg Tyr Asn  
 35 40 45  
 Ala Leu Tyr Gly Leu Gly Leu Leu Leu Thr Pro Pro Leu Ala Leu Phe  
 50 55 60  
 Leu Cys Gly Leu Leu Val Asn Arg Gln Ser Val Leu Met Val Glu Glu  
 65 70 75 80  
 Trp Arg Arg Pro Ala Gly His Arg Arg Lys Asp Leu Gly Ile Ile Arg  
 85 90 95  
 Tyr Met Cys Ser Ser Val Leu Gln Arg Ala Leu Ala Ala Pro Leu Val  
 100 105 110  
 Trp Ile Leu Leu Ala Leu Leu Asp Gly Lys Cys Leu Val Cys Ala Phe  
 115 120 125  
 Ser Asn Ser Val Asp Pro Glu Lys Phe Leu Asp Phe Ala Asn Met Thr  
 130 135 140  
 Pro Ser Gln Val Gln Leu Phe Leu Ala Lys Val Pro Cys Lys Glu Asp  
 145 150 155 160  
 Glu Leu Val Lys Thr Asn Pro Ala Arg Lys Ala Val Ser Arg Tyr Leu  
 165 170 175  
 Arg Cys Leu Ser Gln Ala Ile Gly Trp Ser Ile Thr Leu Leu Val Ile  
 180 185 190  
 Val Val Ala Phe Leu Ala Arg Cys Leu Arg Pro Cys Phe Asn Gln Thr  
 195 200 205  
 Val Phe Leu Gln Arg Arg Tyr Trp Ser Asn Tyr Met Asp Leu Glu Gln  
 210 215 220  
 Lys Leu Phe Asp Glu Thr Cys Cys Glu His Ala Arg Asp Phe Ala His  
 225 230 235 240  
 Arg Cys Val Leu His Phe Phe Ala Ser Met Gln Ser Glu Leu Arg Ala  
 245 250 255  
 Leu Gly Leu His Arg Asp Pro Ala Gly Glu Ile Leu Glu Ser Gln Glu  
 260 265 270

Pro Pro Glu Pro Pro Glu Glu Pro Gly Ser Glu Ser Gly Lys Ala His  
 275 280 285

Leu Arg Ala Ile Ser Ser Arg Glu Gln Val Asn His Leu Leu Ser Thr  
 290 295 300

Trp Tyr Ser Ser Lys Pro Pro Leu Asp Leu Ala Ala Ser Pro Arg Leu  
 305 310 315 320

Trp Glu Pro Gly Leu Asn His Arg Ala Pro Ile Ala Ala Pro Gly Thr  
 325 330 335

Lys Leu Gly His Gln Leu Asp Val  
 340

<210> 6  
 <211> 347  
 <212> PRT  
 <213> Mus sp.

<220>  
 <223> mouse 1 taste cell polypeptide (TCP) #3 amino acid  
 sequence

<400> 6  
 Met Asp Arg Phe Arg Met Leu Phe Gln His Leu Gln Ser Ser Ser Glu  
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Ser Val Met Asn Gly Ile Cys Leu Leu Leu Ala Ala Val Thr Val Lys  
 20 25 30

Ile Tyr Ser Ser Leu Asp Phe Asn Cys Pro Cys Leu Glu Arg Tyr Asn  
 35 40 45

Ala Leu Tyr Gly Leu Gly Leu Leu Leu Thr Pro Pro Leu Ala Leu Phe  
 50 55 60

Leu Cys Gly Leu Leu Val Asn Arg Gln Ser Val Leu Met Val Glu Glu  
 65 70 75 80

Trp Arg Arg Pro Ala Gly His Arg Arg Lys Asp Leu Gly Ile Ile Arg  
 85 90 95

Tyr Met Cys Ser Ser Val Leu Gln Arg Ala Leu Ala Ala Pro Leu Val  
 100 105 110

Trp Ile Leu Leu Ala Leu Leu Asp Gly Lys Cys Phe Val Cys Ala Phe  
 115 120 125

Ser Asn Ser Val Asp Pro Glu Lys Phe Leu Asp Phe Ala Asn Met Thr  
 130 135 140

Pro Arg Gln Val Gln Leu Phe Leu Ala Lys Val Pro Cys Lys Glu Asp  
 145 150 155 160

Glu Leu Val Lys Asn Ser Pro Ala Arg Lys Ala Val Ser Arg Tyr Leu  
 165 170 175

Arg Cys Leu Ser Gln Ala Ile Gly Trp Ser Ile Thr Leu Leu Val Ile  
 180 185 190

Val Val Ala Phe Leu Ala Arg Cys Leu Arg Pro Cys Phe Asp Gln Thr  
 195 200 205  
 Val Phe Leu Gln Arg Arg Tyr Trp Ser Asn Tyr Met Asp Leu Glu Gln  
 210 215 220  
 Lys Leu Phe Asp Glu Thr Cys Cys Glu His Ala Arg Asp Phe Ala His  
 225 230 235 240  
 Arg Cys Val Leu His Phe Phe Ala Asn Met Gln Ser Glu Leu Arg Ala  
 245 250 255  
 Leu Gly Leu Arg Arg Asp Pro Ala Gly Gly Ile Pro Glu Ser Gln Glu  
 260 265 270  
 Ser Ser Glu Pro Pro Glu Leu Arg Glu Asp Arg Asp Ser Gly Asn Gly  
 275 280 285  
 Lys Ala His Leu Arg Ala Ile Ser Ser Arg Glu Gln Val Asp Gln Leu  
 290 295 300  
 Leu Ser Thr Trp Tyr Ser Ser Lys Pro Pro Leu Asp Leu Ala Ala Ser  
 305 310 315 320  
 Pro Arg Arg Trp Gly Pro Gly Leu Asn His Arg Ala Pro Ile Ala Ala  
 325 330 335  
 Pro Gly Thr Lys Leu Cys His Gln Leu Asn Val  
 340 345

<210> 7  
 <211> 313  
 <212> PRT  
 <213> Mus sp.

<220>  
 <223> mouse 2 taste cell polypeptide (TCP) #3 amino acid  
 sequence

<400> 7  
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 1 5 10 15  
 Ala Leu Gly Tyr Ser Leu Val Thr Leu Thr Ala Gly Gly Glu Lys  
 20 25 30  
 Ile Phe Ser Ser Val Val Phe Gln Cys Pro Cys Thr Ala Thr Trp Asn  
 35 40 45  
 Leu Pro Tyr Gly Leu Val Phe Leu Leu Val Pro Ala Leu Ala Leu Phe  
 50 55 60  
 Leu Leu Gly Tyr Ala Leu Ser Ala Arg Thr Trp Arg Leu Leu Thr Gly  
 65 70 75 80  
 Cys Cys Ser Arg Ser Ala Arg Phe Ser Ser Gly Leu Arg Ser Ala Phe  
 85 90 95  
 Val Cys Ala Gln Leu Ser Met Thr Ala Ala Phe Ala Pro Leu Thr Trp  
 100 105 110

Val Ala Val Ala Leu Leu Glu Gly Ser Phe Tyr Gln Cys Ala Val Ser  
 115 120 125  
 Gly Ser Ala Arg Leu Ala Pro Tyr Leu Cys Lys Gly Arg Asp Pro Asn  
 130 135 140  
 Cys Asn Ala Thr Leu Pro Gln Ala Pro Cys Asn Lys Gln Lys Val Glu  
 145 150 155 160  
 Met Gln Glu Ile Leu Ser Gln Leu Lys Ala Gln Ser Gln Val Phe Gly  
 165 170 175  
 Trp Ile Leu Ile Ala Ala Val Ile Ile Leu Leu Leu Leu Val Lys Ser  
 180 185 190  
 Val Thr Arg Cys Phe Ser Pro Val Ser Tyr Leu Gln Leu Lys Phe Trp  
 195 200 205  
 Glu Ile Tyr Trp Glu Lys Glu Lys Gln Ile Leu Gln Asn Gln Ala Ala  
 210 215 220  
 Glu Asn Ala Thr Gln Leu Ala Glu Glu Asn Val Arg Cys Phe Phe Glu  
 225 230 235 240  
 Cys Ser Lys Pro Lys Glu Cys Asn Thr Thr Ser Ser Lys Asp Trp Gln  
 245 250 255  
 Glu Ile Ser Ala Leu Tyr Thr Phe Asn Pro Lys Asn Gln Phe Tyr Ser  
 260 265 270  
 Met Leu His Lys Tyr Val Ser Arg Glu Glu Met Ser Gly Ser Val Arg  
 275 280 285  
 Ser Val Glu Gly Asp Ala Val Ile Pro Ala Leu Gly Phe Val Asp Asp  
 290 295 300  
 Met Ser Met Thr Asn Thr His Glu Leu  
 305 310

<210> 8

<211> 224

<212> PRT

<213> Homo sapiens

<220>

<223> human 1 taste cell polypeptide (TCP) #3 amino acid  
sequence

<400> 8

Phe Leu Leu Leu Ser Ser Ile Leu Gly Arg Ala Ala Val Ala Pro Val  
 1 5 10 15

Thr Trp Ser Val Ile Ser Leu Leu Arg Gly Glu Ala Tyr Val Cys Ala  
 20 25 30

Leu Ser Glu Phe Val Asp Pro Ser Ser Leu Thr Ala Arg Glu Glu His  
 35 40 45

Phe Pro Ser Ala His Ala Thr Glu Ile Leu Ala Arg Phe Pro Cys Lys  
 50 55 60

Glu Asn Pro Asp Asn Leu Ser Asp Phe Arg Glu Glu Val Ser Arg Arg  
 65 70 75 80  
 Leu Arg Tyr Glu Ser Gln Leu Phe Gly Trp Leu Leu Ile Gly Val Val  
 85 90 95  
 Ala Ile Leu Val Phe Leu Thr Lys Cys Leu Lys His Tyr Cys Ser Pro  
 100 105 110  
 Leu Ser Tyr Arg Gln Glu Ala Tyr Trp Ala Gln Tyr Arg Ala Asn Glu  
 115 120 125  
 Asp Gln Leu Phe Gln Arg Thr Ala Glu Val His Ser Arg Val Leu Ala  
 130 135 140  
 Ala Asn Asn Val Arg Arg Phe Phe Gly Phe Val Ala Leu Asn Lys Asp  
 145 150 155 160  
 Asp Glu Glu Leu Ile Ala Asn Phe Pro Val Glu Gly Thr Gln Pro Arg  
 165 170 175  
 Pro Gln Trp Asn Ala Ile Thr Gly Val Tyr Leu Tyr Arg Glu Asn Gln  
 180 185 190  
 Gly Leu Pro Leu Tyr Ser Arg Leu His Lys Trp Ala Gln Gly Leu Ala  
 195 200 205  
 Gly Asn Gly Ala Ala Pro Asp Asn Val Glu Met Ala Leu Leu Pro Ser  
 210 215 220

<210> 9  
 <211> 316  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> human 2 taste cell polypeptide (TCP) #3 amino acid  
 sequence

<400> 9  
 Met Glu Lys Phe Arg Ala Val Leu Asp Leu His Val Lys His His Ser  
 1 5 10 15  
 Ala Leu Gly Tyr Gly Leu Val Thr Leu Leu Thr Ala Gly Gly Glu Arg  
 20 25 30  
 Ile Phe Ser Ala Val Ala Phe Gln Cys Pro Cys Ser Ala Ala Trp Asn  
 35 40 45  
 Leu Pro Tyr Gly Leu Val Phe Leu Leu Val Pro Ala Leu Ala Leu Phe  
 50 55 60  
 Leu Leu Gly Tyr Val Leu Ser Ala Arg Thr Trp Arg Leu Leu Thr Gly  
 65 70 75 80  
 Cys Cys Ser Ser Ala Arg Ala Ser Cys Gly Ser Ala Leu Arg Gly Ser  
 85 90 95

Leu Val Cys Thr Gln Ile Ser Ala Ala Ala Ala Leu Ala Pro Leu Thr  
 100 105 110  
 Trp Val Ala Val Ala Leu Leu Gly Gly Ala Phe Tyr Glu Cys Ala Ala  
 115 120 125  
 Thr Gly Ser Ala Ala Phe Ala Gln Arg Leu Cys Leu Gly Arg Asn Arg  
 130 135 140  
 Ser Cys Ala Ala Glu Leu Pro Leu Val Pro Cys Asn Gln Ala Lys Ala  
 145 150 155 160  
 Ser Asp Val Gln Asp Leu Leu Lys Asp Leu Lys Ala Gln Ser Gln Val  
 165 170 175  
 Leu Gly Trp Ile Leu Ile Ala Val Val Ile Ile Ile Leu Leu Ile Phe  
 180 185 190  
 Thr Ser Val Thr Arg Cys Leu Ser Pro Val Ser Phe Leu Gln Leu Lys  
 195 200 205  
 Phe Trp Lys Ile Tyr Leu Glu Gln Glu Gln Glu Ile Leu Lys Ser Lys  
 210 215 220  
 Ala Thr Glu His Ala Thr Glu Leu Ala Lys Glu Asn Ile Lys Cys Phe  
 225 230 235 240  
 Phe Glu Gly Ser His Pro Lys Glu Tyr Asn Thr Pro Arg His Glu Lys  
 245 250 255  
 Arg Trp Gln Gln Ile Ser Ser Leu Tyr Thr Phe Asn Pro Lys Gly Gln  
 260 265 270  
 Tyr Tyr Ser Met Leu His Lys Tyr Val Asn Arg Lys Glu Lys Thr His  
 275 280 285  
 Ser Ile Arg Ser Thr Glu Gly Asp Thr Val Ile Pro Val Leu Gly Phe  
 290 295 300  
 Val Asp Ser Ser Gly Ile Asn Ser Thr Pro Glu Leu  
 305 310 315

<210> 10  
 <211> 1330  
 <212> DNA  
 <213> Rattus sp.

<220>  
 <223> rat taste cell polypeptide (TCP) #1 nucleotide  
 sequence

<400> 10  
 gaattcggca cgagcagagc ctctgtgggtg ggagccaggc tcccctaggc ctgctcctga 60  
 tctgtctggg tctgccaggc ctctttgcac ggagcattgg ggcaccagag gagaaagtct 120  
 cccacattc gggacaacct tccttcacca gcctcctcaa ctctggacag cctcagccca 180  
 agccagactc tgtgaataat gagttaccag gggttcttcc gaggtcagc gaatctccac 240  
 aagatggatc tctacccaag ggtggctctg aggtgcctgg tgggcctccc ttctgggggc 300  
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<210> 11  
 <211> 1263  
 <212> DNA  
 <213> Mus sp.

<220>  
 <223> mouse taste cell polypeptide (TCP) #1 nucleotide  
 sequence

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 <211> 2525  
 <212> DNA  
 <213> Rattus sp.

<220>  
 <223> rat taste cell polypeptide (TCP) #2 nucleotide  
 sequence

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tcttgggaag agtaccagtc taggcaggag cccacagcat ggacaagcag cagtttctctg 180  
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aaaaa 2525

<210> 13  
<211> 2217  
<212> DNA  
<213> Mus sp.

<220>  
<223> mouse taste cell polypeptide (TCP) #2 nucleotide  
sequence

<400> 13  
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<210> 14

<211> 1794

<212> DNA

<213> Rattus sp.

<220>

<223> rat taste cell polypeptide (TCP) #3 nucleotide sequence

<400> 14

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tttggtcagt	ggaacaaaat	ttgagtagcc	acagtctgaa	taaatttggt	gtggatctgg	1740
gtcagaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaa	1794

<210> 15

<211> 1758

<212> DNA

<213> Mus sp.

<220>

<223> mouse 1 taste cell polypeptide (TCP) #3 nucleotide  
sequence

<400> 15

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<210> 16

<211> 1084

<212> DNA

<213> Mus sp.

<220>

<223> mouse 2 taste cell polypeptide (TCP) #3 nucleotide  
sequence

<400> 16

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aaaa						1084

<210> 17  
<211> 1069

<212> DNA  
<213> Homo sapiens

<220>  
<223> human 1 taste cell polypeptide (TCP) #3 nucleotide  
sequence

<400> 17

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caatggaagc	cccagccagc	agggccagg	gacagtgaag	ctcaccagt	ggctccttta	900
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ccactgggaa	gtggcctcca	gtgcagcctc	tggccttatt	ttatatattt	aaatttttga	1020
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<210> 18  
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<212> DNA  
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<220>  
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sequence

<400> 18  
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 aaagaaaaaa 1029

<210> 19  
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 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:sensory cell  
 polypeptide amino acid sequence encoded by  
 degenerate primer used to amplify taste cell  
 polypeptide (TCP) nucleic acid

<400> 19  
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<210> 20  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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 polypeptide amino acid sequence encoded by  
 degenerate primer used to amplify taste cell  
 polypeptide (TCP) nucleic acid

<400> 20  
 Pro Arg Leu Ser Glu Ser Pro Gln Asp Gly  
 1 5 10

<210> 21  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:sensory cell  
polypeptide amino acid sequence encoded by  
degenerate primer used to amplify taste cell  
polypeptide (TCP) nucleic acid

<400> 21  
Ser Thr Glu Gly Ala Gly Gly Gln Glu Ser  
1 5 10

<210> 22  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:sensory cell  
polypeptide amino acid sequence encoded by  
degenerate primer used to amplify taste cell  
polypeptide (TCP) nucleic acid

<400> 22  
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<210> 23  
<211> 10  
<212> PRT  
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<220>  
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polypeptide amino acid sequence encoded by  
degenerate primer used to amplify taste cell  
polypeptide (TCP) nucleic acid

<400> 23  
Asn Cys Pro Cys Leu Glu Arg Tyr Asn Ala  
1 5 10

<210> 24  
<211> 10  
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<220>  
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polypeptide amino acid sequence encoded by  
degenerate primer used to amplify taste cell  
polypeptide (TCP) nucleic acid

<400> 24  
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